

CLAIMS

1. A ceramic honeycomb structure body which is formed by binding a plurality of porous honeycomb segments with an adhesive layer interposed between each neighboring two of the plurality of porous honeycomb segments,

wherein a plurality of protrusion portions fixed to at least one of adhesion surfaces respectively of each neighboring two of the honeycomb segments are embedded in the adhesive layer, the two neighboring honeycomb segments being opposite to each other with the adhesive layer interposed therebetween.

2. The ceramic honeycomb structure body according to claim 1,

wherein the protrusion portions are formed of any one of one material selected out of inorganic materials and organic materials, a combination of at least two materials selected out of the inorganic materials and the organic materials.

3. The ceramic honeycomb structure body according to any one of claims 1 and 2,

wherein the protrusion portions are formed in a way that the protrusion portions are 0.1mm to 3.0mm in thickness, and in a way that a total of a thickness of one of the protrusion portions and a thickness of a part of the adhesive layer corresponding to a part of the adhesion surface, to which one of the protrusion portions is fixed, is 0.2mm to 4.0mm.

4. A method of manufacturing a ceramic honeycomb structure body, which is formed by binding a plurality of porous honeycomb segments with an adhesive layer interposed between each neighboring two of the plurality of porous honeycomb segments, comprising:

applying an adhesive to an adhesion surface to which protrusion portions are fixed, which is one of opposing adhesion surfaces respectively

of each neighboring two of the honeycomb segments adhered to each other, in a way that the protrusion portions are embedded in the adhesive, and thereby forming the adhesive layer; and

thereafter pressing the two honeycomb segments against each other, with the adhesive layer interposed therebetween, in a direction which makes a gap between the opposing adhesion surfaces narrower, and thereby adhering the two honeycomb segments to each other.

5. The method of manufacturing the ceramic honeycomb structure body according to claim 4,

wherein the protrusion portions are fixed to one of the opposing adhesion surfaces, and the other adhesion surface is formed so as to be flat, and

wherein the adhesive layer is formed on only the former adhesion surface, and thereafter the pressing is performed.

6. The method of manufacturing the ceramic honeycomb structure body according to claim 4,

wherein the protrusion portions are fixed to each of the opposing adhesion surfaces, and

wherein the adhesive layer is formed on each of the adhesion surfaces, and thereafter the pressing is performed.